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# THE FOOD RESEARCH INSTITUTE

STANFORD UNIVERSITY

1922-23

UNIVERSITY OF ILLINOIS
MAR 12 1923

FOUNDATION, ORGANIZATION, GENERAL POLICIES,
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PUBLICATIONS

STANFORD UNIVERSITY, CALIFORNIA
FEBRUARY 1, 1923

# THE FOOD RESEARCH INSTITUTE
## 1922–23

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# THE FOOD RESEARCH INSTITUTE

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## FOUNDATION

The Food Research Institute of Stanford University was founded in February 1921 by the Carnegie Corporation of New York in conjunction with the Trustees of Leland Stanford Junior University, California. The Institute grew out of a suggestion offered by Mr. Herbert Hoover, and its location at Stanford University was due partly to the fact that this University possesses, in the Hoover War Library, a large and unique collection of documentary material relating to the food problems and other economic aspects of the Great War. The Carnegie Corporation guarantees stated funds for the work for a period of ten years. Stanford University provides quarters and facilities and has appointed the directors of the Institute to positions on the Stanford faculty.

The founding of the Food Research Institute was an outgrowth of war experience. During the late war, possibly for the first time in history, food production and distribution, nutrition and dietetics had to be considered by governments as national and international problems. In determining policies required to meet the emergency, food administrators sought certain scientific information from agriculturists, economists, physiologists, and physicians. Many valuable data were readily furnished. On the other hand, much of the desired information was not in existence, not because, given time, it would have been difficult to obtain, but because no one before the war had asked these questions or attempted to reach an adequate answer. Nutrition and dietetics had been studied mainly as individual problems, not as mass problems. The food supply had seldom been examined with adequate reference to its international aspects and to the particular commodities entering into it. Marketing problems had received mainly local investigation. There had been little coördination of studies in several important fields, and serious gaps were numerous. In many instances, therefore,

the lack of essential information led to action more or less in the dark.

The founders of the Food Research Institute were convinced that the scientific study of such problems, from a broad national and international viewpoint, was important in peace no less than in war. Fully recognizing the essential services which research work in federal and state agricultural departments and colleges had rendered and will continue to render, they considered that a non-governmental organization with University affiliations might have advantages in attacking certain kinds of problems without the limitations which apply to other agencies.

## ORGANIZATION

The control of its policies and the active direction of the work of the Institute are in charge of three joint directors. The plan of the founders called for the selection of an expert in agriculture and food manufacture, an expert in economics and food distribution, and an expert in the physiology and chemistry of nutrition. In accordance with this plan, the present directors were appointed in April 1921. During the following summer and fall the Institute was organized at Stanford University. Gradually a staff has been built up. The present organization comprises the directors and their secretaries, three research associates, five research assistants, and a librarian, besides five holders of Food Research Fellowships.

The Institute is organized as an integral part of Stanford University, with the status of a department for the purpose of directing research and recommending degrees. For the year 1922–23 it is maintaining five fellowships for graduate study in the field of food research. The directors guide the work of these fellows and of a few other well-qualified graduate students in studies falling within the general scope outlined below, sometimes constituting a specific part of a piece of research which the Institute has in progress. This individual research ordinarily forms a part of the work toward a higher degree at Stanford University, and is supplemented by such work in other departments of the University as may be necessary to fulfill the usual requirements for degrees.

During the fall, winter, and spring quarters the Institute conducts a weekly seminar in food research. This is essentially a staff

meeting for the discussion of phases of research work in progress. To it are admitted a few suitably qualified seniors or graduate students of the University. Two of the directors are offering, in one quarter of the academic year 1922–23, lecture courses open to qualified students of the University, with subjects as follows: Chemistry of Nutrition; Statistics at Work. A similar course on Food Resources of the World was offered in 1921–22.

## GENERAL POLICIES

The Institute was organized for the purpose of intensive study of the production, distribution, and consumption of food. It proposes to investigate significant food problems from the standpoint of their bearing upon national economy and well-being, to deal with them as mass problems, and to emphasize the commodity and international aspects. While it will frequently study data of individual businesses, it will do this not in order to serve as a business adviser, but primarily in order to discover facts and principles of general importance.

Numerous existing organizations are already conducting research into food problems, from one angle or another, notably the Department of Agriculture, state bureaus of markets, agricultural colleges and experiment stations; research organizations of banks, business houses, trade and marketing associations; and university departments, bureaus, or committees. It is the policy of the Institute to avoid, so far as possible, any serious overlapping of the work of established research organizations, public or private. It will endeavor rather to enlist the aid of existing organizations in the prosecution of researches in which there is a common interest, in which essential data are already collected or in process of collection, or in which another organization is in a better position to perform a portion of the research. Moreover in numerous instances the Institute will consider its object attained if methods which it may develop, or sample studies which it may make, can be utilized by public or private agencies in undertaking similar investigations on a far more extended scale.

The research work will be done, for the most part, at Stanford University. In general, subjects for investigation will be selected which do not necessitate extensive field work, or in which the results of field investigations conducted by other competent or-

ganizations can be utilized. It is recognized, however, that certain investigations which the Institute can properly undertake may require more or less field work by the directors, associates, or fellows, and for these the necessary provision will be made.

The Institute does not contemplate undertaking extensive experimental work on its own account. Nevertheless the University's established facilities for experimental research on food, nutrition, etc., are available to graduate students, and to a limited extent the directors of the Institute will coöperate in the direction of such research in its special field. Thus during the year 1922–23 researches are in progress in the chemical laboratory of the University upon certain problems of flour grading and analysis.

In part the results of researches will be published through established technical journals. Where circumstances render this undesirable, the results will usually appear in a series of publications to be issued by the Food Research Institute. In cases where certain lines of research are of interest to specific groups of readers, other or additional channels of publication will be sought in order to reach those concerned.

## RESEARCH WORK IN PROGRESS

In accordance with an early decision of the directors, most of the research work of the Institute is concerned for the present with wheat and wheat products, and mainly with the economic problems related to these commodities. The principal studies now in progress may be mentioned briefly.

Crop estimating and reporting methods in the United States and abroad are being studied to determine how far past and current statistics of crops may be accepted as reliable, how far the bases upon which they are obtained are comparable, and in what ways the accuracy of crop forecasts and reports may be improved.

In coöperation with the Kansas State Agricultural College, and with the aid of criticisms from other students of farming costs, detailed farm cost data are being studied in order to arrive at sound principles of cost analysis and effective means of interpreting these data.

Statistics of wheat and flour production, domestic movements, and imports and exports are being studied in their relation to prices. The objective of this study is an interpretation of the world

wheat position in the light of available statistics and other relevant facts.

Economic developments in Europe, particularly in respect to agriculture and food consumption, are being followed with special reference to their bearing upon the demand for wheat imports.

Census and other statistics of the baking industry are being assembled and digested to give a broad view of the organization of the baking industry and the tendencies in its development in recent years. The economic aspects of the baking industry as a whole, and particularly the bread-baking industry, are being surveyed in preliminary fashion as a basis for research upon special problems.

The report on stale bread losses in the baking industry, soon to be issued, illustrates a more intensive type of study, involving the coöperation of bakers and the counsel of a committee of the American Bakers' Association.

Besides these studies in which the staff of the Institute is engaged, the holders of Food Research Fellowships are working upon problems selected in consultation with the directors. These studies relate to the following subjects: physical properties and chemical composition of flours in relation to their baking qualities; the transportation of wheat and flour in the United States, with special reference to the development of the rate structure; factors limiting the expansion of food production with the growth of population; economic laws of productivity, with special reference to food production; the food elements in measures of standards of living.

## PUBLICATIONS

The first year of the Institute was largely occupied with the establishment at Stanford, the determination of general policies, the organization of a staff, enlarging the collection of materials required for research, and making preliminary surveys and investigations designed to furnish the basis for more intensive studies. The work has been fully under way only since the summer of 1922. Accordingly most of the research work is still in its early stages.

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The following contributions published in various journals represent the results of particular researches or papers incidental to research work:

JOSEPH S. DAVIS. "Bread Distribution: a Subject for Research." *Bakers Weekly,* Oct. 29, 1921. (Also published in other trade journals.)

ALONZO E. TAYLOR. "The World's Need of Russia." *Proceedings of the Thirty-fifth Annual Convention of Land-Grant Colleges,* November, 1921.

JOSEPH S. DAVIS. "Economic Research for Bakers." *Bakers Buying Guide,* 1922.

ALONZO E. TAYLOR. "Consumption After the Boom." *Saturday Evening Post,* June 3, 1922.

ALONZO E. TAYLOR. "The Commercial Importance of Russia." *American Economic Review,* September, 1922.

ALONZO E. TAYLOR. "The Competitive Menace of the Tropics." *Circular No. 150,* College of Agriculture, University of Wisconsin, September, 1922.

[JOSEPH S. DAVIS AND WILFRED ELDRED]. "Stale Bread Loss: Preliminary Report of Investigation by Food Research Institute," September 16, 1922. (Mimeographed. Also published in various trade journals.)

ALONZO E. TAYLOR. "The Decline in the Price of Cereals." *Journal of Farm Economics,* October, 1922.

ALONZO E. TAYLOR. "The Future of the United States as a Food Exporter." *Manchester Guardian Commercial,* November 16, 1922.

The first of the Institute series of publications, now in press, will be the following:

JOSEPH S. DAVIS AND WILFRED ELDRED. "Stale Bread Loss as a Problem of the Baking Industry." *Food Research Institute Publication No. 1,* February, 1923.



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